

**IN THE UNITED STATES DISTRICT COURT FOR THE
MIDDLE DISTRICT OF TENNESSEE**

NATURAL RESOURCES DEFENSE)
COUNCIL, INC., BEATRICE HOLT, and)
SHEILA HOLT-ORSTED,)
)
Plaintiffs,)
)
v.) Case No.:
)
COUNTY OF DICKSON, TENNESSEE, and)
CITY OF DICKSON, TENNESSEE,)
)
Defendants.)
)
)

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

1. This case is brought to abate the imminent and substantial endangerment to human health and the environment posed by trichloroethylene (“TCE”) disposed at the Dickson Landfill. TCE has been commonly used as an industrial solvent and degreaser for metal parts. For almost four decades, industrial and other hazardous and solid wastes, including TCE, were dumped at the Dickson Landfill. That waste did not stay put.

2. The Landfill itself is now extensively contaminated with TCE and TCE’s degradation products. TCE pollution has seeped deep beneath the Landfill to underlying groundwater and has today spread through a large swath of Dickson County. TCE contamination has rendered water from wells and springs two to three miles from the Landfill unfit for human consumption. Polluted spring water is flowing directly into the West Piney River, a fishing stream and a major source of drinking water for the Water Authority of Dickson County. Several square miles of Dickson County have been recognized as an “imminent threat” area by the County. TCE contamination above drinking water limits, and orders of magnitude

above United States Environmental Protection Agency (“EPA”) drinking water screening levels, has been found in at least one well even outside that threat area. In some areas, this TCE contamination may be growing worse.

3. Although sweet to the smell and colorless to sight, TCE is toxic. Exposure to TCE has been linked to nervous system impairment; liver and lung damage; abnormal heartbeat; low birth weight, congenital heart defects, orofacial defects, and other developmental harms; and comas. TCE is also a likely human carcinogen. In sufficient concentrations, TCE causes death.

4. Defendants County and City of Dickson, Tennessee (“Defendants”), the Landfill’s owners and operators, have not taken steps necessary to remove this TCE contamination. Some two decades after TCE was first detected in nearby drinking water sources, Defendants have not even fully characterized the present extent and likely future spread of the contamination. Defendants have, in effect, surrendered the soil and ground and surface water of Dickson County to the slow spread of an invisible and toxic chemical.

5. Section 7002(a)(1)(B) of the Resource Conservation and Recovery Act (“RCRA”), 42 U.S.C. § 6972(a)(1)(B), authorizes private persons to sue those responsible for such contamination to compel a comprehensive investigation and cleanup. Defendants City of Dickson, Tennessee, and County of Dickson, Tennessee, own and operate the Landfill, and are responsible for its management. Each Defendant has contributed to the disposal and management of TCE-contaminated waste that may present an imminent and substantial endangerment to human health and the environment of Dickson County.

6. Plaintiffs Beatrice Holt and Sheila Holt-Orsted live near the Landfill on a property owned by Beatrice Holt that has been contaminated with TCE. Plaintiff Natural Resources Defense Council, Inc. is a non-profit environmental organization with members throughout the

United States, including in Dickson County. Through this suit, Plaintiffs seek to compel Defendants to investigate and characterize fully the spread of TCE contamination through their community, to restore the waters and lands of Dickson County that have been polluted by this contamination, and to protect the health of Dickson County's residents and environment.

JURISDICTION AND VENUE

7. This Court has jurisdiction over the subject matter of this action pursuant to RCRA, 42 U.S.C. § 6972(a), and the federal question statute, 28 U.S.C. § 1331. This action arises under RCRA, 42 U.S.C. §§ 6901 *et seq.*, which is a federal law. This Court may award Plaintiffs all necessary injunctive relief pursuant to RCRA, 42 U.S.C. § 6972(a), and may award declaratory relief pursuant to the Declaratory Judgment Act, 28 U.S.C. §§ 2201-02.

8. Defendants received notice of the endangerment over which Plaintiffs now sue on or by July 17, 2007. A copy of Plaintiffs' notice letter, dated June 26, 2007, is attached as Exhibit A and incorporated herein by reference. Plaintiffs mailed copies of the notice letter to the Administrator of the EPA and the EPA Regional Administrator for the region encompassing this judicial district, the United States Attorney General, the Commissioner of the Tennessee Department of Environment and Conservation ("TDEC"), the Director of the TDEC Division of Solid and Hazardous Waste Management ("DSWM"), and the Tennessee Attorney General, all of whom received notice on or by July 10, 2007.

9. Venue is proper in this judicial district under 28 U.S.C. § 1391(b)(2), because a substantial part of the events or omissions giving rise to Plaintiffs' claims occurred in this judicial district and the property that is the subject of the action is located in this judicial district. Venue is proper under RCRA, 42 U.S.C. § 6972(a), because the alleged endangerment occurred or may occur in this judicial district.

PARTIES

10. Defendant City of Dickson, Tennessee (“City”) is an owner of portions of the Landfill and jointly operates the Landfill with the County of Dickson, Tennessee (“County”). The City has owned and operated portions of the Landfill since at least 1968. The City has jointly operated the Landfill, with Dickson County, since August 1972 or earlier.

11. Defendant County of Dickson, Tennessee (“County”) is an owner of portions of the Landfill and jointly operates the Landfill with the City. The County has served as a joint operator of the Landfill, with the City, since at least August 1972.

12. Plaintiff Beatrice Holt and her daughter, plaintiff Sheila Holt-Orsted (collectively, “the Holts”) reside at a home, owned by Beatrice Holt, that is located just across a local road from the Landfill at the Landfill’s southeast corner (“Holt property”). The Holts have lived at the Holt property since 1973. Sheila Holt-Orsted now spends approximately half the year living at the Holt property. The Holts lived at an adjacent property from 1961 until 1973. From at least 1973 until 2000, the Holts drew water from private wells on the Holt property, located approximately 300 feet from the Landfill boundary, for drinking, cooking, bathing, and other domestic uses.

13. The well water on the Holt property became contaminated with TCE as the result of the migration of TCE and its degradation products from TCE-contaminated waste disposed at the Landfill. In 1988, an EPA sample revealed TCE contamination at not less than 3.5 parts per billion (“ppb”) in a well known as the “Harry Holt well.” Since that time, well water from the Holt property has exceeded 100 ppb TCE on multiple occasions. Well water from the Holt property has also been contaminated with *cis*-1,2-dichloroethylene (“*cis*-1,2-DCE”), a TCE degradation product.

14. Due to the contamination of their well water, the Holts have paid for water deliveries since October 2000. The Holts presently pay for water delivered by the Water Authority of Dickson County.

15. The Holts and members of their immediate and extended families have experienced serious health problems that they reasonably believe are related to their long-term exposure to contamination from the Landfill. Beatrice Holt's husband and Sheila Holt-Orsted's father, Harry Holt, who lived at the Holt property and drank from the Harry Holt well, died of cancer in January 2007. Sheila Holt-Orsted suffers from breast cancer, diagnosed in April 2003. Beatrice Holt suffers from cervical polyps, diagnosed in September 2002. Other members of the extended family who have lived at the Holt property, including Sheila Holt-Orsted's daughter and Beatrice Holt's other children and grandchildren, suffer from other health disorders. The Holts have been and will continue to be injured due to contamination from the Landfill until Defendants are compelled to assess and eliminate that contamination.

16. Plaintiff Natural Resources Defense Council, Inc. ("NRDC") is a not-for-profit membership corporation founded in 1970 and organized under the laws of the State of New York. NRDC maintains offices in New York, NY; Washington, DC; Chicago, IL; San Francisco and Santa Monica, CA; and Beijing, China. NRDC has more than 420,000 members nationwide, including more than 4,000 members who live in the State of Tennessee. NRDC's purposes include the preservation, protection, and defense of the environment, public health, and natural resources. For over thirty years, NRDC has engaged in scientific analysis, public education, advocacy, and litigation on a wide range of environmental and health issues. NRDC has long been active in efforts to reduce the threats to human health and environment from toxic chemicals, including TCE.

17. Approximately twenty NRDC members live in Dickson County, Tennessee. Some of these members live in proximity to the Landfill. NRDC members who live in Dickson County drink, cook, bathe, and garden with water from sources, including private wells and public water deliveries from the Water Authority of Dickson County, threatened by TCE contamination from the Landfill. NRDC members who live in Dickson County reasonably believe that TCE contamination from the Landfill may endanger their health, the health of their families and communities, and the environment. NRDC members have been and will continue to be injured by contamination from the Landfill until Defendants are compelled to characterize and remedy that contamination.

FACTUAL BACKGROUND

A. The Hazards of TCE and Its Degradation Products

18. TCE, and the chemicals into which TCE degrades (“TCE degradation products”), are extremely hazardous and potentially lethal to humans and other organisms.

19. TCE is a colorless liquid with a somewhat sweet odor and a sweet, burning taste. It is most commonly used as an industrial solvent and degreaser for metal parts, but is also used in other chemical products including paint removers, adhesives, and spot removers. TCE is classified as a volatile organic compound (“VOC”).

20. TCE harms the human heart, lungs, kidneys, liver, immune system, nervous system, and reproductive system. TCE is also associated with developmental harm, including low birth weight, congenital heart defects, and orofacial defects. The National Toxicology Program (“NTP”) has determined that TCE is “reasonably anticipated to be a human carcinogen.” The International Agency for Research on Cancer (“IARC”) has determined that TCE is “probably carcinogenic to humans.” The Centers for Disease Control (“CDC”) has

linked TCE to orofacial defects, including cleft lip and cleft palate. The Agency for Toxic Substances and Disease Registry (“ATSDR”) has found that drinking or breathing high levels of TCE may cause nervous system effects, liver and lung damage, abnormal heartbeat, coma, and possibly death.

21. Humans may become exposed to TCE by drinking, bathing, or swimming in contaminated water; by skin contact, including contact with TCE-contaminated soil; or by breathing TCE vapors. Wildlife may become exposed to TCE when it is present in their natural habitat.

22. TCE is a dense non-aqueous phase liquid (“DNAPL”) contaminant, because it is denser than water in its liquid form. This property makes TCE likely to sink to and pool at the bottoms of water bodies, to accumulate on impermeable and semi-impermeable soil and bedrock layers, and to flow quickly through groundwater and pollute wells and springs fed by groundwater. Because of TCE’s chemical and physical properties, local karst geologic conditions, and variation in weather conditions, it is not unusual for sampling results for individual wells, springs, or surface waters to vary widely from sample to sample. It follows that the failure to detect TCE in any one sample, on any one date, cannot establish that the groundwater in the vicinity of the sampling point is free of TCE contamination.

23. TCE also adheres to soil particles and sediments.

24. TCE can vaporize when water or soil in which it is contained is exposed to the air at the ground surface and in soil gas.

25. TCE may persist in groundwater, sediments, and soils for long periods of time.

26. TCE can degrade in subsurface groundwater into other VOCs. These degradation products include vinyl chloride (“VC”), otherwise known as chloroethene, chloroethylene, and

ethylene monochloride, as well as several forms of dichloroethylene (“DCE”), including 1,1-dichloroethylene (“1,1-DCE”), also known as 1,1-dichloroethene or vinylidene chloride; *cis*-1,2-dichloroethylene (“*cis*-1,2-DCE”), also known as *cis*-1,2-dichloroethene; and *trans*-1,2-dichloroethylene (“*trans*-1,2-DCE”), also known as *trans*-1,2-dichloroethene.

27. The detection of one or more of the chemicals TCE, DCE, and/or VC in a water body will often indicate that one or more of the other chemicals, or degradation products, are also present in that water body.

28. 1,1-DCE is a colorless liquid. 1,1-DCE breaks down very slowly in water, can vaporize from water or soil into air and soil gas, and can contaminate groundwater. 1,1-DCE has been linked to nervous system, liver, lung, and kidney damage, as well as birth defects. EPA has identified 1,1-DCE as a possible human carcinogen.

29. 1,2-DCE is a colorless liquid. Two forms of DCE, *cis*-1,2-DCE and *trans*-1,2-DCE, can vaporize into air and soil gas, can travel through soil or dissolve in water in soil, and can contaminate groundwater. *Trans*-1,2-DCE has been linked to liver, lung, and heart damage, as well as death. *Cis*-1,2-DCE has been linked to liver effects and death.

30. VC is a sweet-smelling, colorless gas that can vaporize from water or soil into air and soil gas, and can contaminate groundwater. VC can damage the liver, immune and nervous systems and cause death, and has been associated with developmental harm. The Department of Health and Human Services has determined that VC is a “known carcinogen.”

31. Humans and wildlife may become exposed to 1,1-DCE, *cis*-1,2-DCE, *trans*-1,2-DCE, and VC by drinking contaminated water, breathing vapors, or through skin contact.

32. TCE and its degradation products (including 1,1-DCE, *cis*-1,2-DCE, *trans*-1,2-DCE, and VC) are regulated as hazardous substances under RCRA, 40 C.F.R. § 261.33(f) (Table

listing 1,1-DCE at U078, 1,2-DCE at U079, TCE at U228, and VC at U043); as drinking water contaminants under the Safe Drinking Water Act, 42 U.S.C. §§ 300f *et seq.*, and implementing regulations, 40 C.F.R. § 141.50(a) (VC, 1,1-DCE, *cis*-1,2-DCE, *trans*-1,2-DCE, and TCE), § 141.61(a) (VC, 1,1-DCE, *cis*-1,2-DCE, *trans*-1,2-DCE, and TCE); and as toxic substances under the State of Tennessee's Water Quality Control Act, Tenn. Code Ann. § 69-3-101 *et seq.*, and implementing regulations, Tenn. Comp. R. & Regs. § 1200-4-3-.03(1)(j) (listing VC, 1,1-DCE, *cis*-1,2-DCE, and *trans*-1,2-DCE as "toxic substances").

33. The Safe Drinking Water Act provides for EPA to establish a maximum contaminant level goal ("MCLG") and a maximum contaminant level ("MCL") for certain contaminants in drinking water. EPA must set the MCLG at "the level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety." 42 U.S.C. § 300g-1(b)(4)(B). EPA must set the maximum contaminant level ("MCL"), directly enforceable against all public water systems regulated under the SDWA, at a level "which is as close as to the [MCLG] as is feasible." 42 U.S.C. § 300g-1(b)(4)(B); *see also id.* § 300g, 300g-1(a)-(b).

34. EPA has determined that there is no demonstrably safe level of TCE in drinking water. EPA therefore established an MCLG for TCE of zero (0). Based on considerations of feasibility, in 1987 EPA established an MCL for TCE of 5 ppb, or 0.005 milligrams per liter of water ("mg/L"). 40 C.F.R. §§ 141.50(a)(5), 141.61(a)(5).

35. The State of Tennessee has established a limit of 5 ppb TCE for all waters used for "domestic water supply." Tenn. Comp. R. & Regs. § 1200-4-3-.03-(1)(j).

36. EPA Region 4, the region that includes Tennessee, recommends use of preliminary remediation goals ("PRGs") of less than 0.03 ppb for TCE in tap water; of 0.05

milligrams per kilogram (“mg/kg”) for TCE in residential soil; and of 0.11 mg/kg for TCE in industrial soil.

37. EPA Region 4 recommends use of an ecological screening value of 0.001 mg/kg for TCE in soil.

38. EPA has determined that there is no demonstrably safe level of VC in drinking water. EPA therefore established an MCLG for VC of zero (0). Based on considerations of feasibility, EPA established an MCL for VC of 2 ppb. 40 C.F.R. §§ 141.50(a)(2), 141.61(a)(1).

39. EPA has established an MCLG and MCL of 7 ppb for 1,1-DCE. 40 C.F.R. §§ 141.50(b)(1), 141.61(a)(7).

40. EPA has established an MCLG and MCL of 70 ppb for *cis*-1,2-DCE. 40 C.F.R. §§ 141.50(b)(10), 141.61(a)(9).

41. EPA has established an MCLG and MCL of 100 ppb for *trans*-1,2-DCE. 40 C.F.R. §§ 141.50(b)(11), 141.61(a)(17).

B. Defendants’ Disposal and Management of TCE at the Dickson County Landfill

42. The Dickson Landfill is located in Dickson County two miles southwest from the City of Dickson’s downtown, along Eno Road. The Landfill began operations in approximately 1968 and was expanded several times, including in 1977, 1987, and 1992. The Landfill includes a transfer station property on Eno Road.

43. From approximately 1968 through the present, solid and/or hazardous wastes have been disposed at the Landfill. These wastes have included TCE.

44. Beginning in the late 1960s or early 1970s, for many years the wastes disposed at the Landfill included weekly trailer loads of drummed TCE and TCE-contaminated liquid

wastes, sludges, and slurries from local industrial facilities, as well as contaminated soil from cleanups of other facilities and sites.

45. Until 1988, the Landfill accepted hazardous and industrial wastes without regard to physical state or disposal container design. After 1988, the Landfill continued to accept liquid and industrial wastes and other wastes requiring special handling in some circumstances.

46. Areas of the Landfill used to dispose industrial wastes and other solid and hazardous wastes, including wastes containing TCE, were left exposed to the elements for many years. Waste drums were visible on the surface of the Landfill as late as 1991. Exposure of this waste to the elements, including rainwater, contributed to the TCE contamination of landfill leachate, as well as the subsequent TCE contamination of underlying soil, groundwater, and bedrock.

47. Areas of the Landfill used to dispose industrial wastes and other solid and hazardous wastes, including wastes containing TCE, were and remain unlined. No barrier separates these wastes from the underlying soil, groundwater, and bedrock. The disposal of waste on open ground contributed to the migration of TCE contamination to underlying soil, groundwater, and bedrock.

48. Surface outbreaks of leachate from the Landfill were identified as early as 1983 and continued through at least the 1990s. In 1995, consultants to the County estimated that the Landfill was generating leachate at a rate of five hundred thousand gallons per acre per year.

C. TCE Contamination at the Landfill

49. TCE and its degradation products have been found in soil and groundwater several hundred feet beneath the Landfill and in wells and springs as far as two to three miles away. This contamination has rendered, and continues to render, groundwater and surface water

unfit for domestic use, and threatens drinking water sources and potential drinking water sources for thousands of City and County residents, including the Holts and members of NRDC.

50. In 1988, TCE was detected in a water sample from the Holt well, which is installed at a depth of 340 feet, and lies approximately 300 feet east of the Landfill. That same year, TDEC determined that contamination from the Landfill could be reaching Bruce Spring, approximately 2.5 miles to the southwest of the Landfill.

51. Monitoring wells were not installed at the Landfill until 1989, and samples from wells at the Landfill were not regularly tested for VOCs until approximately 1994. Until late 2002, when well MW-DD was installed to a depth of approximately 325 feet, there was no monitoring well deeper than 200 feet at the Landfill.

52. Subsequent groundwater samples taken from wells at the Landfill have indicated the presence of TCE and its degradation products, including *cis*-1,2-DCE and VC, at concentrations many times the Maximum Contaminant Levels (“MCLs”) and Maximum Contaminant Level Goals (“MCLGs”) that EPA has established for these chemicals. For example:

- a. TCE has been found in groundwater samples from monitoring well MW-DS, on the Landfill property, at concentrations of at least ten thousand times the MCL. All twenty-seven known quarterly samples taken by the County’s environmental consultants from MW-DS between April 2003 and September 2007 have shown TCE at concentrations that exceed the MCL by at least one thousand times.
- b. TCE has also been detected in groundwater samples from well MW-DD, on the Landfill property, at concentrations of at least one thousand times the MCL; in samples from well DK-9, on the Landfill property, at concentrations of at least

five times the MCL; and in samples from monitoring well MW-1A, on the Landfill property, at concentrations above the MCL.

- c. The chemical 1,1-DCE, a TCE degradation product, has been found in groundwater wells MW-DS and MW-DD at concentrations that exceed the MCLG and MCL for that contaminant.
- d. The chemical *cis*-1,2-DCE, a TCE degradation product, has been found in groundwater from well MW-DS at concentrations more than 150 times the MCLG and MCL for that contaminant. Groundwater sampling from well MW-DD has also indicated *cis*-1,2-DCE at a concentration at least forty times the MCLG and MCL for that contaminant.
- e. Groundwater samples from well MW-DD and MW-DS have indicated the presence of *trans*-1,2-DCE.
- f. Groundwater samples from well MW-DS have indicated the presence of VC at concentrations nearly three hundred times the MCL for that contaminant, or higher. Groundwater samples from well MW-DD have also indicated the presence of VC at levels of at least forty times the MCL.

53. On information and belief, there has been no regular sampling of soil contamination at or around the Landfill. However, TCE has been found in soil samples that have been taken at levels well above EPA standards. For example, an analysis of soils extracted from beneath the Landfill during the installation of well MW-DD in 2002 revealed TCE at concentrations of at least 41.4 mg/kg, more than forty thousand times the EPA Region 4 recommended ecological risk screening value for TCE in soil, more than three hundred times the

D. The Spread of TCE and Related Contamination

54. The Landfill is situated on a local rise in a region of rolling hills and valleys, at a surface elevation of approximately 850 feet above sea level. The lands underlying and surrounding the Landfill are dominated by karst geology, which is characterized by underground rock that contains numerous fractures, caves and voids. The fractures, joints, and other openings in the bedrock can facilitate rapid migration of contaminants, such as TCE. The irregular surface of the bedrock can facilitate pooling of DNAPLs, such as TCE.

55. Surface water drains from the Landfill in several directions, including to the south, southwest, west, and northwest. Surface water drains to the north and west of the Landfill to unnamed tributaries of the Worley Furnace Branch creek, and from there to the Worley Furnace Branch creek, which flows into the West Piney River at a point less than two miles from the Landfill. Water also drains south and southwest from the Landfill to Baker Branch creek, which in turn flows into the West Piney River at a point less than two miles from the Landfill. Water also drains north from the Landfill to a small wetland area.

56. Groundwater flows from the Landfill in several directions, including to the north, northwest, northeast, south, and southwest.

57. The groundwater underlying the Landfill influences numerous springs and wells around the Landfill, including the Harry Holt, Lavenia Holt and Roy Holt private wells to the east and southeast; municipal well DK-21 to the east-northeast; Sullivan Spring to the northwest; and Bruce Spring and the L. Donegan, B. LaRose, and G. Work wells to the southwest.

58. At least ten area wells and springs, outside the Landfill, are already known to be contaminated with TCE and/or *cis*-1,2-DCE from the Landfill. Some of these wells and/or springs are nearly three miles from the Landfill. For example:

- a. Sullivan Spring is contaminated with TCE and *cis*-1,2-DCE. Sullivan Spring lies about one-third of a mile northwest of the Landfill and flows into the Worley Furnace Branch creek less than two miles upstream of the confluence of the Worley Furnace Branch creek and the West Piney River. At least thirty-five samples taken at Sullivan Spring since March 1994 have revealed the presence of TCE. At least thirty-two of those samples have revealed TCE at levels above the MCL, and in at least two samples, TCE concentrations have exceeded the MCL by more than forty times.
- b. Bruce Spring is contaminated with TCE and *cis*-1,2-DCE. Bruce Spring is located immediately across Bruce Road from the West Piney River, approximately 2.5 miles southwest of the Landfill. Water from Bruce Spring drains through a short channel and culvert directly into the West Piney River, upstream of the confluence with the East Piney River. At least fifteen of sixteen quarterly samples taken by Dickson County's environmental consultant at Bruce Spring since November 2004 have revealed TCE contamination, and at least thirteen of these samples have revealed TCE in concentrations above the MCL for that contaminant. At least twelve of sixteen quarterly samples taken from Bruce Spring by Dickson County's environmental consultant during this time also revealed *cis*-1,2-DCE.

- c. The Harry Holt well, which lies fewer than 300 feet to the east of the Landfill, is contaminated with TCE and *cis*-1,2-DCE. At least ten samples taken from the Harry Holt well since October 1988 have revealed the presence of TCE. At least seven of those ten samples revealed TCE contamination in concentrations above the MCL. At least seven samples taken from the Harry Holt well since October 1988 have also revealed DCE contamination.
- d. The Roy Holt well, which lies fewer than 500 feet to the east of the Landfill, is contaminated with TCE and *cis*-1,2-DCE. At least six samples taken from the Roy Holt well since November 2000 revealed TCE concentrations at least three times higher than the MCL. At least three of the samples taken since November 2000 also revealed *cis*-1,2-DCE.
- e. The Lavenia Holt well, which lies fewer than 500 feet to the southeast of the Landfill, is contaminated with TCE.
- f. In 1996, TCE was detected in water samples taken from municipal well DK-21, one-third of a mile east-northeast of the Landfill. TCE was again detected in water samples from well DK-21 in 1997.
- g. TCE has been found in other area wells affected by groundwater contamination from the Landfill. TCE has been detected in the L. Donegan and M. Pierce wells, which are located approximately 1.5 miles southwest of the Landfill. TCE concentrations nearly three times the MCL, or higher, have been detected in the G. Work well, which is located approximately two miles southwest of the Landfill. TCE has also been found in the L. Donegan, L. Gorley, B. LaRose, and M. Pierce wells, and found at concentrations above the MCL in the L. Donegan,

B. LaRose, and M. Pierce wells. The L. Donegan and B. LaRose wells have been found to be contaminated with *cis*-1,2-DCE, in addition to TCE.

59. Surface waters in the vicinity of the Landfill have also been contaminated with TCE and TCE degradation products. TCE has been detected in the West Piney River at concentrations above the MCL. *Cis*-1,2-DCE has been detected in the West Piney River and in water sampled from a ditch south of the Landfill.

60. By late 1995, the Dickson Water Department had concluded, in an assessment approved by TDEC, that Dickson's groundwater-fed drinking water sources were "highly susceptible" to contamination from the Landfill.

61. In May 2003, TDEC informed the County that groundwater in the enlarged fractures beneath the Landfill had "a high potential for communicating with drinking water wells in the surrounding area."

62. An October 2003 draft site assessment report and proposal commissioned by TDEC and funded by the Tennessee Department of Transportation found that "due to the complex groundwater flow patterns associated with [the] type of fractured bedrock aquifer" underlying the Landfill, groundwater assessment efforts should be expanded to include wells and springs out to at least a 3-mile radius around the Landfill, and that wells within a broader radius be considered for future sampling based on the results of the initial assessment.

63. A March 2004 site assessment by a consultant to EPA ("EPA Report") concluded both that the Landfill was contaminating groundwater with TCE and other pollutants, and that the extent of the contamination had yet to be characterized fully, in part because previous investigations had "been too limited in scope or did not fully account for the hydrologic setting." The EPA Report called for a "comprehensive and well-planned hydrogeologic investigation" of

both soil and groundwater contamination “in the deeper residuum immediately around the Landfill,” in order to establish the extent of that contamination and the potential for migration into the underlying bedrock. The EPA Report also called for investigation of groundwater contamination in the bedrock and at drainage points beyond recently constructed monitoring wells, including to the southwest. The EPA Report further noted that contamination from the Landfill may have reached areas that had yet to be identified and studied.

64. In August 2004, the County acknowledged that the residents of certain lands extending short distances north, west and east of the Landfill, and several miles southwest of the Landfill to the West Piney River, faced an “imminent threat” of exposure to groundwater contamination from the Landfill. In January 2007, the County adopted regulations that include these lands within an “environmental risk area” that the County has recognized as “having the highest potential risk” of contamination from the Landfill (“County-identified imminent threat area”).

65. TCE contamination has been found in at least one well located on the west side of the West Piney River and outside the County-identified imminent threat area. Contamination with TCE, 1,1-DCE, *cis*-1,2-DCE, *trans*-1,2-DCE and/or VC has also been found in wells, including well MW-DD and the Harry Holt well, that draw from deep groundwater.

66. The full present extent of contamination and spread of TCE and its degradation products in the groundwater, surface water, soil, and air at and surrounding the Landfill remain unknown. Defendants have not conducted adequate ongoing sampling of the wells, springs, creeks, rivers, soils, and air to characterize fully the spread of contamination through and from the Landfill property.

67. What sampling data have been collected and/or reported by the County's environmental consultants over the past decade indicate that levels of TCE and its degradation products in the groundwater contaminated by the Landfill have not decreased. In some instances, the TCE contamination of Dickson County groundwater and surface water appears to be worsening. For example:

- a. For several years prior to April 1997, the concentrations of TCE in Sullivan Spring reported by the County's environmental consultants generally did not exceed 85 ppb. Since that time, most samples from Sullivan Spring have been contaminated with TCE in concentrations above 85 ppb. At least seventeen samples since 1997, including quarterly samples taken in March, June, and September 2007, were contaminated with TCE in concentrations above 100 ppb.
- b. Concentrations of TCE in Bruce Spring were reported by the County's environmental consultants to be at or below 85 ppb in all but one quarterly sample taken between November 2004 and June 2006. Since that time, TCE concentrations have increased. All quarterly samples taken by the County's environmental consultants from Bruce Spring during the period September 2006 through September 2007 were contaminated with TCE in concentrations that exceeded 100 ppb.

68. The spread of contamination of TCE and its degradation products from the Landfill may present an imminent and substantial endangerment to human health, the environment, or both.

E. Endangerment of Private Drinking Water Wells and Springs

69. Contamination with TCE and its degradation products from the Landfill has rendered surrounding groundwater unfit for human consumption and other domestic use. This contamination has also reached springs and other surface waters, making those waters unfit for human consumption and other domestic uses.

70. Thousands of City and County residents have traditionally relied on groundwater-fed private wells and springs for drinking, cooking, bathing, gardening, and other domestic needs. In 1992, EPA estimated that approximately 500 people within a mile of the Landfill, and 1700 people within four miles of the Landfill, were using groundwater for drinking water.

71. On information and belief, despite the extension of public water system lines to portions of the County-identified imminent threat area between fall 2005 and January 2007, some residents of that area continue to use private wells and/or springs fed by groundwater. On information and belief, some households within the County-identified imminent threat area still lack connections to the public water system. On information and belief, additional households within the County-identified imminent threat area, including some within a mile of the Landfill, continue to rely on groundwater-fed wells and/or springs for drinking and other domestic uses despite the availability of water deliveries from the Water Authority of Dickson County (“Water Authority”).

72. Many persons who live outside the County-identified imminent threat area, including some NRDC members, continue to use private wells for drinking and other domestic uses. Some of these private wells may be threatened with contamination by TCE and/or its degradation products at present or as the contamination spreads. Defendants are not conducting sampling necessary to characterize the ongoing spread of this contamination.

F. Endangerment of Other Drinking Water Supplies

73. Contamination from the Landfill threatens the public water supplies for the City, County, and surrounding communities.

74. In the past, well DK-21 has been used as a source of public drinking water for residents of the City of Dickson and surrounding communities. Well DK-21 lies approximately one-third of a mile east-northeast of the Landfill and is known to be contaminated with TCE. Well DK-21 can no longer safely be used to supply drinking water due to this contamination.

75. The Water Authority is an agency responsible for supplying water for domestic use to residents of the City of Dickson, most of Dickson County, and portions of the neighboring Hickman, Cheatham, Humphreys, and Williamson Counties. The Holts and a number of NRDC members presently receive water deliveries from the Water Authority.

76. The Water Authority presently draws its water supplies from sources including the West Piney River. On any given day, the West Piney River may supply up to two million gallons of the Water Authority's approximately five to six million gallon daily demand. The West Piney River intake for the Water Authority's water system is located on the West Piney River, immediately upstream of the West Piney River's confluence with the East Piney River, and southwest of the Landfill.

77. TCE contamination from the Landfill is known to be extending in the direction of the West Piney River. Springs and creeks influenced by surface and/or groundwater from the Landfill flow into the West Piney River upstream of the water intake for the Water Authority. These springs and creeks include Bruce Spring, which flows into the West Piney River upstream and within two miles of the Water Authority's water intake; Sullivan Spring, which flows into the Worley Furnace Branch creek tributary to the West Piney River at a point about six miles

upstream of the Water Authority's water intake; and Baker Branch creek, which collects runoff from the Landfill before flowing into the West Piney River upstream of the Water Authority's water intake. TCE has repeatedly been found in Bruce Spring at levels at least twice the MCL, or higher, and at least four hundred times EPA Region 4's recommended PRG for TCE in tap water, or higher. TCE has repeatedly been found in Sullivan Spring at levels at least thirty times the MCL, or higher, and at least five thousand times EPA Region 4's recommended PRG for TCE in tap water, or higher. TCE has also been found in the West Piney River, in the vicinity of Bruce Spring, at levels above the MCL and at least two hundred and fifty times EPA Region 4's recommended PRG for TCE in tap water.

78. TCE has in the past been detected in finished water delivered to residents of the City of Dickson.

79. The Water Authority occasionally samples its finished water for VOCs, including TCE, 1,1-DCE, *cis*-1,2-DCE, and *trans*-1,2-DCE. The Water Authority samples for these VOCs no more than four times per year, and sometimes as infrequently as once a year. This sampling regimen cannot reliably detect VOCs that are present, but not continuously or evenly distributed, in the public water system.

80. On information and belief, the detection limits of the analytic methods and lab analyses used by the Water Authority to detect TCE and VC exceed the MCLG for these contaminants, making it impossible for the Water Authority to reliably detect TCE and VC that are present in finished water supplies above the MCLG. The MCLG is the concentration at which EPA has determined no known or anticipated adverse effects on the health of persons occur, with an adequate margin of safety.

81. On information and belief, the Water Authority's water treatment facilities do not have proven capacity to remove TCE or other VOCs from public water supplies.

G. Endangerment of Waters Used for Fishing and Recreation, Agriculture, and Wildlife

82. The State of Tennessee has established a limit of 5 ppb TCE for all waters used for domestic water supply as well as for recreation (including fishing), irrigation, livestock watering, and/or habitat for fish, aquatic life, or wildlife. Tenn. Comp. R. & Regs. § 1200-4-3-.03(1)(j); *id.* § 1200-4-3-.02(5).

83. Both the West Piney River and its Worley Furnace Branch creek tributary are used for recreational fishing. The State of Tennessee has recognized these waters' recreational and habitat value by designating the Piney River, which originates at the confluence of the West and East Piney Rivers, a "naturally reproducing trout stream." Tenn. Comp. R. & Regs. § 1200-4-4; *id.* § 1200-4-4-.05.

84. TCE has been detected at Sullivan Spring, which flows into the Worley Furnace Branch creek and from there into the West Piney River, at levels over forty times the maximum of 5 ppb TCE for waters used for domestic water supply as well as for recreation, irrigation, livestock watering, and/or habitat for fish, aquatic life, or wildlife, and over seven thousand times EPA Region 4's recommended PRG for TCE in tap water.

85. TCE has been detected at Bruce Spring, which flows into the West Piney River, at levels nearly three times, or higher, the maximum of 5 ppb TCE for waters used for domestic water supply as well as for recreation, irrigation, livestock watering, and/or habitat for fish, aquatic life, or wildlife, and nearly five hundred times, or higher, EPA Region 4's recommended PRG for TCE in tap water.

86. TCE has been detected in the West Piney River near Bruce Spring at levels above the maximum of 5 ppb TCE for waters used for domestic water supply as well as for recreation, irrigation, livestock watering, and/or habitat for fish, aquatic life, or wildlife.

87. The State of Tennessee generally prohibits TCE, 1,1-DCE, *cis*-1,2-DCE, *trans*-1,2-DCE, and VC in its surface waters, and in groundwater that discharges to surface waters, at any levels that would render those waters unsafe or unsuitable for fishing or other water contact recreation; adversely affect the quality of those waters for irrigation or livestock watering, or for wildlife; and/or harm fish and aquatic life. Tenn. Comp. R. & Regs. §§ 1200-4-3-.03(1)(j); 1200-4-3-.03(4)(j); 1200-4-3-.03(5)(f); 1200-4-3-.03(6)(f); 1200-4-3-.03(3)(g).

88. The lands surrounding the Landfill include a number of small farms that rely on water from private wells, and/or from the West Piney River and its tributaries, for irrigation or livestock watering. These sources of water may be threatened with TCE contamination from the Landfill in concentrations that exceed levels permitted by EPA and the State of Tennessee.

H. Defendants' Failure to Remedy Landfill Contamination

89. Today, some two decades after the discovery of TCE in the Harry Holt well, Defendants have failed to assess fully, let alone to remediate, the threats to human health and the environment posed by contamination from the Dickson Landfill.

90. Defendants have not determined how far, how widely, or how deep TCE and its degradation products have presently spread from the Landfill through the soils, surface waters, and groundwater.

91. Defendants have never determined how much farther, or at what rate, TCE and TCE degradation products can be expected to migrate away from the Landfill.

92. Defendants have not carried out a sampling plan adequate to determine how many residents of the City, County, and surrounding areas are presently threatened by contamination of groundwater, surface water, or soils due to the spread of TCE and TCE degradation products from the Landfill.

93. Defendants have never determined what fish, livestock, wildlife, recreational waters, and other natural resources are threatened by contamination from the Landfill.

LEGAL BACKGROUND

94. RCRA provides for comprehensive regulation of solid and hazardous wastes to prevent threats to human health and the environment. In enacting RCRA, Congress recognized that “disposal of solid waste and hazardous waste in or on the land without careful planning and management can present a danger to human health and the environment,” and that inadequate control of hazardous waste management in particular “will result in substantial risks to human health and the environment.” 42 U.S.C. § 6901(b)(2), (b)(5). Congress declared that hazardous waste “should be treated, stored or disposed of so as to minimize the present and future threat to human health and the environment,” *id.* § 6902(b); *see also id.* § 6902(a)(3) (establishing the statutory purpose of “prohibiting future open dumping on the land and requiring the conversion of existing open dumps to facilities which do not pose a danger to the environment or to health”), *id.* § 6902(a)(4) (establishing the statutory purpose of “assuring that hazardous waste management practices are conducted in a manner which protects human health and the environment”).

95. In 1984, Congress amended RCRA to allow private persons to bring suit to abate certain hazards caused by the mismanagement of solid or hazardous waste. Specifically, section 7002(a)(1)(B) of RCRA, added to RCRA by the Hazardous and Solid Waste Amendments of

1984, P.L. 98-616, 98 Stat. 3221, Title IV, § 401, and codified at 42 U.S.C. § 6972(a)(1)(B), authorizes private persons to commence civil actions

against any person, . . . including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility, who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment.

42 U.S.C.A. § 6972(a)(1)(B). Liability under this provision is joint, several, and strict.

PROCEDURAL BACKGROUND

96. Federal and state regulators have not acted to restrain or abate the acts or conditions which may have contributed or may be contributing to the Landfill's endangerment of human health and the environment.

97. EPA has not commenced, and is not diligently prosecuting, an action under RCRA § 7003, 42 U.S.C. § 6973, that concerns the Landfill.

98. EPA has not commenced, and is not diligently prosecuting, an action under section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), 42 U.S.C. § 9606, that concerns the Landfill.

99. EPA is not actually engaging, and has not actually engaged, in a removal action under section 104 of CERCLA, 42 U.S.C. § 9604, that concerns the Landfill.

100. EPA has not incurred costs to initiate a Remedial Investigation and Feasibility Study under section 104 of CERCLA, 42 U.S.C. § 9604, that concerns the Landfill.

101. EPA is not diligently proceeding with a remedial action under CERCLA, 42 U.S.C. § 9601 *et seq.*, that concerns the Landfill.

102. EPA has not obtained a court order, or issued an administrative order, under RCRA § 7003, 42 U.S.C. § 6973, pursuant to which any of Defendants or any other responsible

party is diligently conducting a removal action, Remedial Investigation and Feasibility Study, or any remedial action that concerns the Landfill.

103. EPA has not obtained a court order, or issued an administrative order, under section 106 of CERCLA, 42 U.S.C. § 9606, pursuant to which any of Defendants or any other responsible party is diligently conducting a removal action, Remedial Investigation and Feasibility Study, or remedial action that concerns the Landfill.

104. The State of Tennessee has not commenced, and is not diligently prosecuting, any action under RCRA § 7002(a)(1)(B), 42 U.S.C. § 6972(a)(1)(B), that concerns the Landfill.

105. The State of Tennessee is not actually engaging in a removal action under CERCLA § 104, 42 U.S.C. § 9604, that concerns the Landfill.

106. The State of Tennessee has not incurred costs to initiate a Remedial Investigation and Feasibility Study under CERCLA § 104, 42 U.S.C. § 9604, that concerns the Landfill.

107. The State of Tennessee is not diligently proceeding with any remedial action under CERCLA that concerns the Landfill.

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CLAIM FOR RELIEF

Defendants Have Violated RCRA by Contributing to the Handling, Storage, Treatment Transportation and/or Disposal of Solid and Hazardous Waste Which Presents, or May Present, an Imminent and Substantial Endangerment to Health or the Environment

108. Plaintiffs reallege and incorporate the allegations of all the preceding paragraphs of this Complaint as if fully set forth herein.

109. Solid and hazardous wastes, including TCE and wastes contaminated with TCE, have been disposed at the Dickson County Landfill since at least the late 1960s.

110. Contamination from solid and hazardous wastes known to have been disposed on open ground at the Landfill, including TCE, has been spreading through surrounding groundwater, surface water, and soil for decades. This uncontained contamination, which has repeatedly been detected in wells and springs surrounding the Landfill since 1988, and has been found in springs that flow to waters used for public and private residential water supplies, fishing, irrigation, livestock watering, and wildlife habitat as recently as fall 2007, may present an imminent and substantial endangerment to human health and the environment.

111. The County of Dickson, a political subdivision of the State of Tennessee, is a “person” for purposes of RCRA. 42 U.S.C. § 6903(15). The County, through its ownership and operation of the Landfill, has contributed and is contributing to the handling, storage, treatment, transportation and/or disposal of solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment within the meaning of section 7002(a)(1)(B) of RCRA, 42 U.S.C. § 6972(a)(1)(B).

112. The City, a municipality within the State of Tennessee, is a “person” for purposes of RCRA. 42 U.S.C. § 6903(15). The City, through its ownership and operation of the Landfill, has contributed and is contributing to the handling, storage, treatment, transportation and/or

disposal of solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment within the meaning of section 7002(a)(1)(B) of RCRA, 42 U.S.C. § 6972(a)(1)(B).

113. The Holts and members of NRDC will suffer irreparable harm unless Defendants prepare a comprehensive site evaluation that determines the present and likely future extent of contamination from the Landfill in groundwater, surface water, soil and air and the associated threat to health and the environment, and act to eliminate that threat by removing, containing, treating or otherwise remediating the contamination.

114. Plaintiffs have no adequate remedy at law.

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PRAYER FOR RELIEF

Plaintiffs request that this Court enter a judgment that:

(1) Declares that Defendants have contributed and/or are contributing to the past and/or present handling, storage, treatment, transportation, and/or disposal of solid or hazardous waste containing TCE at the Dickson County Landfill that may present an imminent and substantial endangerment to health and the environment;

(2) Orders Defendants to:

- a. Investigate the present extent of TCE and TCE degradation product contamination from the Landfill in the soil, surface water, and groundwater of Dickson County;
- b. Investigate and project the expected future spread of TCE and/or TCE degradation product contamination from the Landfill;
- c. Characterize the endangerment posed by TCE and TCE degradation product contamination or threatened contamination from the Landfill to soils, surface waters, groundwater, and other environmental media and natural resources;
- d. Remediate present TCE and TCE degradation product contamination from the Landfill;
- e. Abate the threat of TCE and TCE degradation product contamination from the Landfill; and
- f. Take any additional actions that may be necessary to remedy the endangerment to health and/or the environment from TCE and TCE degradation product contamination associated with the Landfill;

(3) Orders Defendants to pay Plaintiffs' reasonable attorneys' fees, expert witness fees, and costs incurred in prosecuting this action, pursuant to 28 U.S.C. § 2412 and 42 U.S.C. § 6972(e); and

(4) Orders such other and further relief as the Court may deem just and proper.

Dated: March 4, 2008

Respectfully submitted,

/s/ Joe W. McCaleb
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